In the Claims:

1. (Currently Amended) A pull-up circuit, comprising:

a pull-up circuit output;

logic circuitry to generate an enable signal in response to a battery supply voltage;

an active pull-up circuit block that, in response to a first logical value of the enable signal, brings the voltage on the pull-up circuit output to a reference voltage derived from an external voltage supply, the pull-up circuit block including

a first input providing the reference voltage;

a second input;

an operational amplifier, having a reference voltage input connected to [[a]] the first input thereof and an output,[[;]] and

a first transistor, controlled by the output of the operational amplifier, the first transistor having a first terminal connected to a first supply voltage input and having a second terminal connected to [[a]] the pull-up circuit output and to [[a]] the second input of the operational amplifier; and

~~such that, when the operational amplifier is enabled, it acts to bring the voltage on the pull-up circuit output equal to the voltage on the reference voltage input~~.

an alternative pull-up circuit block that, in response to a second logical value of the enable signal, brings the voltage on the pull-up circuit output to a reference voltage derived from the battery supply.

2. (Original) A pull-up circuit as claimed in claim 1, further comprising a plurality of diodes, connected in series between the first supply voltage input and ground, with the reference voltage input connected at an intermediate point in said series connection of diodes.

3. (Previously presented) A pull-up circuit as claimed in claim 1, wherein the first input of the operational amplifier is the noninverting input, and the second input of the operational amplifier is the inverting input.

4. (Previously presented) A pull-up circuit as claimed in claim 1, wherein the first transistor is an NMOS transistor.

5. (Previously presented) A pull-up circuit as claimed in claim 1, further comprising:

a second transistor, having its conducting path connected between the first supply voltage input and the output of the operational amplifier, controlled such that it is turned off while the operational amplifier is enabled.

6. (Original) A pull-up circuit as claimed in claim 5, wherein the second transistor is a PMOS transistor.

7. (Previously presented) A pull-up circuit as claimed in claim 1, further comprising:

a pull-up resistance, switchably connected between a second supply voltage input and the pull-up circuit output; and

logic circuitry, for determining whether a voltage on the second supply voltage input is greater than a threshold voltage and,

when it is determined that the voltage on the second supply voltage input is greater than the threshold voltage, for disabling the operational amplifier and for connecting the pull-up resistance between the second supply voltage input and the pull-up circuit output, and

when it is determined that the voltage on the second supply voltage input is not greater than the threshold voltage, for enabling the operational amplifier and for disconnecting the pull-up resistance.

8. (Original) A pull-up circuit as claimed in claim 7, wherein the pull-up resistance is switchably connected between a regulated voltage obtained from the second supply voltage input and the pull-up circuit output.

9. (Previously presented) A pull-up circuit as claimed in claim 7, wherein the pull-up resistance comprises first and second resistors connected in parallel between the second supply voltage input and the pull-up circuit output when the pull-up circuit is in idle

mode, and wherein one of said resistors is deactivated to thereby increase the pull-up resistance when the pull-up circuit is in active mode.

10. (Original) A USB transceiver, comprising a pull-up circuit as claimed in claim 1, wherein the first terminal is connectable to a USB bus voltage.

11. (Original) A USB transceiver, for use in a USB Device, the USB transceiver comprising a pull-up circuit as claimed in claim 7, wherein the first terminal is connectable to a USB bus voltage, and wherein the second supply voltage input of the pull-up circuit is connectable to a power supply of the USB Device.

12. (Original) A US3 transceiver, as claimed in claim 11, further comprising a DC-DC converter, for forming a regulated voltage from the power supply of the USB Device, wherein the pull-up resistance is switchably connected between the regulated voltage and the pull-up circuit output.

13. (Previously presented) A USB transceiver as claimed in claim 10, comprising a first pull-up circuit having its pull-up circuit output connected to a D+ line of a USB Device, and a second pull-up circuit having its pull-up circuit output connected to a Dline of a USB Device.

14. (Previously presented) A transceiver as claimed in claim 10, suitable for use in a USB on-the-go device.

15. (Previously presented) A USB device, comprising a USB transceiver as claimed in claim 10.

16. (Previously presented) A USB on-the-go device, comprising a USB transceiver as claimed in claim 10.

17. (New) A pull-up circuit, comprising:

an operational amplifier, having a reference voltage input connected to a first input thereof; and

a first transistor, controlled by the output of the operational amplifier, the first transistor having a first terminal connected to a first supply voltage input and having a second terminal connected to a pull-up circuit output and to a second input of the operational amplifier;

such that, when the operational amplifier is enabled, it acts to bring the voltage on the pull-up circuit output equal to the voltage on the reference voltage input, wherein the pull-up resistance comprises first and second resistors connected in parallel between the second supply voltage input and the pull-up circuit output when the pull-up circuit is in idle mode;

a pull-up resistance, switchably connected between a second supply voltage input and the pull-up circuit output; and

logic circuitry, for determining whether a voltage on the second supply voltage input is greater than a threshold voltage and,

when it is determined that the voltage on the second supply voltage input is greater than the threshold voltage, for disabling the operational amplifier and for connecting the pull-up resistance between the second supply voltage input and the pull-up circuit output, and

when it is determined that the voltage on the second supply voltage input is not greater than the threshold voltage, for enabling the operational amplifier and for disconnecting the pull-up resistance

18. (New) A pull-up circuit as claimed in claim 17, wherein one of said resistors is deactivated to thereby increase the pull-up resistance when the pull-up circuit is in active mode.

19. (New) A USB transceiver, comprising a pull-up circuit as claimed in claim 17, wherein the first terminal is connectable to a USB bus voltage.

20. (New) A USB transceiver, for use in a USB Device, the USB transceiver comprising a pull-up circuit as claimed in claim 17, wherein the first terminal is connectable to a USB bus voltage, and wherein the second supply voltage input of the pull-up circuit is connectable to a power supply of the USB Device.